

POWER SAVINGS IN DYNAMIC REGISTER FILE STRUCTURES

Arjun P. Chandran

Gregg K. Tsujimoto

Anup S. Mehta

ABSTRACT OF THE DISCLOSURE

10           In the Retirement Payload Array (RPA) of a  
microprocessor, the pointer advance signal "ADVANCE  
POINTER" from the Instruction Retirement Logic (IRL) of  
the Instruction Scheduling Unit (ISU) is utilized to  
provide conditional read RPA signals. Consequently,  
15           according to the invention, a read of the RPA is  
completed only if it is determined that the read word  
line being read in the current cycle is not the same  
read word line that was read in the previous cycle.

20